

Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

What is claimed is:

1. (Currently amended) A process for identifying a chemical compound for possible use in a medicament for treating a disorder selected from the group consisting of a cardiovascular disorder, an inflammatory disorder, and a disorder of blood vessels said compound modulating an interaction between i) a human EVH1 (Ena-VASP – (*Drosophila melanogaster* enabled vasodilator-stimulated phosphoprotein) – Homology 1) binding domain or a protein having an a human EVH1 binding domain and ii) a human EVH1 domain or a protein having a human EVH1 domain, which process comprises:

- a) bringing a human EVH1 binding domain or a protein having a human EVH1 binding domain which interacts with a human EVH1 domain or a protein having a human EVH1 domain into contact with a chemical compound to be examined on a surface which consists of a solid body and is coated with a human EVH1 binding domain or a protein having a human EVH1 binding domain;
- b) incubating the mixture according to a) with an antibody which specifically binds to a human EVH1 binding domain or a protein having a human EVH1 binding domain or a human EVH1 domain or a protein having a human EVH1 domain or which has an antigen which is fused with or chemically coupled to these domains or proteins;
- c) incubating the mixture according to b) with a second antibody which is capable of specifically binding the antibody from mixture b), said second antibody having an attached label that can be detected biochemically or physicochemically;

- d) detecting the label on the second antibody after incubation according to c) by biochemical or physicochemical detection; and
- e) identifying the chemical compound thereby indicated as a compound for possible use in a medicament for treating a disorder selected from the group consisting of a cardiovascular disorder, an inflammatory disorder, and a disorder of blood vessels.

2. (Canceled)

3. (Previously presented) A process for identifying a chemical compound for possible use in a medicament for treating a disorder selected from the group consisting of a cardiovascular disorder, an inflammatory disorder, and a disorder of blood vessels said compound modulating an interaction between a human EVH1 (Ena-VASP – (*Drosophila melanogaster* enabled vasodilator-stimulated phosphoprotein) – Homology 1) binding domain or a protein having a human EVH1 binding domain and a human EVH1 domain or a protein having a human EVH1 domain, which process comprises:

- a) bringing a human EVH1 binding domain or a protein having a human EVH1 binding domain which interacts with a human EVH1 domain or a protein having a human EVH1 domain into contact with a chemical compound to be examined;
- b) incubating the mixture according to a) with an antibody which specifically binds to a human EVH1 binding domain or a protein having a human EVH1 binding domain or a human EVH1 domain or a protein having a human EVH1 domain or which has an antigen which is fused with or chemically coupled to these domains or proteins;
- c) incubating the mixture according to b) with a second antibody which is capable of specifically binding the antibody from mixture b), said second antibody having an attached label that can be detected biochemically or physicochemically;

d) detecting the label on the second antibody after incubation according to c) by biochemical or physicochemical detection; and

e) identifying the chemical compound thereby indicated as a compound for possible use in a medicament for treating a disorder selected from the group consisting of a cardiovascular disorder, an inflammatory disorder, and a disorder of blood vessels;

wherein step a) takes place on a solid body, said solid body being coated with a human EVH1 domain or a protein having a human EVH1 domain, the human EVH1 domain or the protein having the human EVH1 domain on said solid body interacting with a human EVH1 binding domain or a protein having a human EVH1 binding domain.

4. (Previously presented) The process as claimed in claim 1 or 3, wherein the solid body forms part of a microtiter plate.

5. (Previously presented) The process as claimed in claim 1 or 3, wherein the protein having a human EVH1 domain used is VASP (vasodilator-stimulated phosphoprotein) or a fusion protein comprising: i) a first fusion component selected from the group consisting of a VASP and a VASP fragment having an EVH1 domain, and ii) a second fusion component selected from the group consisting of a glutathione S-transferase, a maltose binding protein and a hexahistidine.

6-7. (Canceled)

8. (Previously presented) The process as claimed in claim 1 or 3, wherein the protein having a human EVH1 binding domain is zyxin or a zyxin derivative consisting of a fusion protein of glutathione S-transferase having the first 142 amino acids of zyxin fused to the C-terminus of said glutathione S-transferase.

9. (Previously presented) The process as claimed in claim 8, wherein the

zyxin derivative comprises a fusion protein which consists essentially of: i) a first fusion component selected from the group consisting of zyxin and a zyxin fragment having a human EVH1 binding domain and i) a second fusion component selected from the group consisting of a glutathione S-transferase and a maltose binding protein.

10-11. (Canceled)

12. (Previously presented) The process as claimed in claim 1 or 3, wherein a polyclonal antibody is used for the incubation according to b).

13. (Previously presented) The process as claimed in claim 1 or 3, wherein a monoclonal antibody which is synthesized using hybridoma cells is used for the incubation according to b).

14. (Previously presented) The process as claimed in claim 13, wherein the monoclonal antibody is mAB IE245.

15. (Previously presented) The process as claimed in claim 13, wherein the monoclonal antibody is mAB IE273.

16. (Previously presented) The process as claimed in claim 1 or 3, wherein the biochemically or physiochemically detectable antibody label of step c) is a radioactive isotope, a fluorescent dye, or an enzyme is used for the incubation according to c).

17. (Previously presented) The process as claimed in claim 16, wherein the enzyme is alkaline phosphatase or β -galactosidase.

18. (Previously presented) The process as claimed in claim 16, wherein the fluorescent dye is a lanthanide complex.

19. (Original) The process as claimed in claim 18, wherein the lanthanide complex used is a europium complex.

20-48. (Canceled)

49. (Previously presented) The process as claimed in claim 1 or 3, wherein the EVH1 domain or protein having a human EVH1 domain is recombinantly prepared in insect cells.

50. (Previously presented) The process as claimed in claim 49, wherein the protein having a human EVH1 domain is VASP or a VASP fragment having the EVH1 domain.